

$\frac{d}{dt} \left( \frac{\partial L}{\partial \dot{x}} \right) = \frac{\partial L}{\partial x}$

Daed 1-----MBSLFCE SSGDSSLEKE FLGAPYGPVS STPNQSHSP SRSLANSIK VEMYSDESS RL LCPDERL KDDOSYVBE DLSBPLGYC  
Hel ---MHCTLTM ETDADGYIT GDNLSPEGB HANMAIDLT STPNQQAAP SHMTSTNSVK LEMOSDEBCD ROLPSREDEI LGHDESSSLB RGDDESSYVA  
Alo ---MEDIOTPYE LKSTBEQPLP TESPDALNDY SLKPHEIEN YDSREAPANE DEDAGEDSMK VKDEYSRDE N. IMKPEPM GDAESEM. P YSAREYSDY  
Ik MDYDEGDMS QVSGKESPPV SDTPDE. GDB PMYPEDLST TSGAQNKS DRGMA. SNVK YBTOSDEENG R. ACEMNGE ECAEDRLMD ASGEMKNGSH

101 DSGSPRP. HS PGGIRLPNGK LKCOVCGNYC IGPNYLNYHE RSHITGERPPH CNOOGASPTO KGWLLRHKL HSGEKKPPKCP FCHYACRRRD ALTGHLRTHS 200  
Hel DNRRKVDILOG ERGIRLPNGK LKCOVCGNYC IGPNYLNYHE RSHITGERPPH CNOOGASPTO KGWLLRHKL HSGEKKPPKCP FCHYACRRRD ALTGHLRTHS  
Alo ESILKLRHYP VDNRSPTSGK MNCQVCGLSK ISPNYLYNHE RSHITGERPPH CNOOGASPTO KGWLLRHKL HSGEKKPPKCP FCHYACRRRD ALTGHLRTHS  
Ik RDOGSSALSG VGGIRLPNGK LKCDIOGIVC IGPNYLNYHE RSHITGERPPH CNOOGASPTO KGWLLRHKL HSGEKKPPKCP FCHYACRRRD ALTGHLRTHS

201 YSSPTVGGPY KONYCGRSYK OOSTLEBHEK RCHNYLQSL TDA. QALTG Q. PGDEIRD LEMYPDSMLH .PSTERPTFI DRLANSLTR ERSTPOKPYVG 300  
Hel .....VGKPH KONYCGRSYK ORTSLBHEK RCHNYLQSV MEAAGQVMHSH HYPPHEDCKE OBPIMDNIS LVAFERPAVI EKLTANMGR ESSSTPOKPYVG  
Alo .....VEKPY KCBFCGRSYK ORSSLBHEK RCHAFLOMPD LGDAASY... EARNIK. ....AEM. ....GSRALYL DRLASNAVR ESSSTPOKPYG  
Ik .....VGKPH KCGYCGRSYK ORSSLBHEK RCHNYLSMG LPGYCPVIKE ETHNHMAED LCKI. ....GAERSLYL DRLASNAVR ESSSTPOKPYG

301 EKOMRPSLSD LPYDVWASGG YEKDYELVYH HGLEPGFGS LAFYGTGHLR PLRLPPTNCI SELTPVISSV YTOHOPISR LELPGSRBAG EGPEDLGGG 400  
Hel EKLHRPSPYD IHFMHILT. YEKEARLMS HMDQAINNA ITYLGAELH PLMOHAPSTI ARVAPVISSA YSQQYH. PNR IERPISSRTS DSHENHMDGP  
Alo EKRHCDF. ....ANYNPGYM YEKEDENMOT RMDQAINNA ISYLGAELR PLVQTTPAPT SEMYPVISSV YPIALTRAD. ....MP. ....MGAPDEMEK  
Ik DK. .CLS. ....DMPYDSAN YEKEDENMOT HMDQAINNA INYLGAELR PLVQTTPG. S SEMYPVISSV YQLHKPPSD. ....GPPRSM HSAQDAVDWL

401 PLLYRARGSL TDPGASPSNG COOSTDTESH HEDRIGGVYS LPOGPPPOPP PTIYVGRHSP AYAKEDPKPO BGLLGTGP SKKEYLVYGE SGEPPYKAPIC 500  
Hel ISLRPKSRP QEREASPSNS CLDSTDSESS HEDR. ....Q SYOGPALNP KR. ....KOSP AYMERDYKAL DA. TKAPGS LKDIYKPYNG EGBQIRAPIC  
Alo RILLPEKILP SERGLSPNMS ACOOSTDTESH HEDR. OHLYO QSHVYLPQ. ....ARNGM PLLKEYPRSP B. LLKPPPIC LRDSIKYINK EGBYMOVPRC  
Ik LLLSKAKSVS SEREASPSNS COOSTDTESH ABBORSGLY LTNHINPH. ....ARNGL. ALKEBORAY B. VLRASEN SODAFRYVST SGEOLKYVYC

501 EKHRIPLDHY VMTIINGCH GPNPPFCBH COYHSDRYE PSSHIYRGH KYGSCRI  
Hel EKHRIPLDHY VMTIINGCH GPNPPFCBH COYHSDRYE PSSHIYRGH TFH--  
Alo EKHRIPLDHY VMTIINGCH GPNPPFCBH COYHSDRYE PSSHIYRGH RAMLK--  
Ik EKHRIPLDHY VMTIINGCH GPNPPFCBH COYHSDRYE PSSHIYRGH RYHLS--

550 EKHRIPLDHY VMTIINGCH GPNPPFCBH COYHSDRYE PSSHIYRGH KYGSCRI  
Hel EKHRIPLDHY VMTIINGCH GPNPPFCBH COYHSDRYE PSSHIYRGH TFH--  
Alo EKHRIPLDHY VMTIINGCH GPNPPFCBH COYHSDRYE PSSHIYRGH RAMLK--  
Ik EKHRIPLDHY VMTIINGCH GPNPPFCBH COYHSDRYE PSSHIYRGH RYHLS--

C. 1-----MBSLFCE SSGDSSLEKE FLGAPYGPVS STPNQSHSP SRSLANSIK VEMYSDESS RL LCPDERL KDDOSYVBE DLSBPLGYC  
XDaed MSGSTPTTVY GHKLESIFYS STVAALDRPK AGDSSLEKEP LGAPVGPVS TPNSHSHSPS RSLANSIKV EMYSDESSR LLGPDERLLD KDDOSYVBE DLSBPLGYC  
101 LSEPLGYCDS SGPSPHSPGS IRLPNGKLEK DYCGHYCIGP NYLNYHSHS TORRPPFCBH COASPTOKGN LLRHKLHSG EKPFPKPPCH YACRRRDALT  
XDaed LYEPLGYCDS PGODPHSP. G IRLPNGKLEK DYCGHYCIGP NYLNYHSHS TORRPPFCBH COASPTOKGN LLRHKLHSG EKPFPKPPCH YACRRRDALT  
201 GHLRTHSVSS PTYVGPYKON YCGRSYKLOS TLEBHEKCH NYLQSLTDA QALTGQDDE IRDLEBWPDS MLHPSTERPT PIDRLANSLT KRERSTPOK 350  
XDaed GHLRTHA. ....VGKPYKON YCGRSYKLOS TLEBHEKCH NYLQSLTDA QALTGQDDE IRDLEBWPDS MLHPSTERPT PIDRLANSLT KRERSTPOK  
301 VGEKORPSSL SDLPYDVWAS GGYEKDYELV AHNGLEPGFG GSLAFYGTSH LPL. RLPPTH CISELTPVIS SVYTOHOPIP SRLLEPGSRB AGEGBEDLGD  
XDaed EKHRIPLSD ADLPYDVWAS GGYEKDYELV SHPLDTAYG NSLAFYGTSH GPNRLPPTN CISELTPVIS SVYTOHOPIP GRPDMPGNRE AAGEHEDIPD  
401 GGPALLYRARG SLTDPGASPS NGOODS. TDT ESTHEDRIGG VYSLPOGPPP OPPPTIYVGR HSPATAKEIP KPOBGLI. ....RGTPGPSEK VLYVYGESGE  
XDaed GTOIHTRG. ....SEHGASPT NGOODSNTDT ESTHEDRIGG VYSLPOGPPP ATE. ....SR OSSAYAKEDD RPSDGGLLP SRMPGTAKR SLRVLGEDGV  
501 PLYKAPICRHC RYPLDHYV TINGCHGPR DPPECHICG HCOORYEPSS HIYGRCHYV SCRI  
XDaed PLYKAPICRHC RYPLDHYV TINGCHGPR DPPECHICG HCOORYEPSS HIYGRCHYV SCRI

FOOT 1932500

Figure 2

